

The genus *Nervilia* (Orchidaceae) in Andaman-Nicobar Archipelago, India.

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Abstract

Nervilia plicata is reported for the first time from Andaman-Nicobar archipelago. Brief description, illustrations and an artificial key to the 3 species of *Nervilia* based on vegetative characters are provided.

INTRODUCTION

The Andaman-Nicobar archipelago in the Bay of Bengal lies between 6° and 14° N latitudes and 92° and 94° E longitudes. This stretch of land mass with over 319 islands and islets are situated between Burma in the north and Sumatra in the south. The climate, geological features, humidity etc. resemble that of South East Asia in general and Malaysia in particular. The flora of these islands shows affinities with that of Assam, Burma, Thailand, Malaysia, Sumatra and Java. As per the latest record (Sathish Kumar & Manilal, 1994) this tiny group of islands hold over 104 species, 1 sub-species and 1 variety of orchids distributed under 53 genera.

***Nervilia* Comm. ex Gaud.**

Ground orchids with underground tubers. Flowers and leaves appear at different seasons. Leaves solitary, simple, stalked, often heart-shaped. Flowers on erect racemes, 1-several. Sepals and petals similar, spreading, narrowly elongate. Lip often 3-lobed, without a spur; column straight, elongate, thickened at the tip. Anther horizontal; pollinia 2, granular, divided.

This genus comprise over 100 species distributed from Africa to India, China and through Malaysia (Seidenfaden & Wood, 1992). In India it is represented by 16 species (Sathish Kumar & Manilal, 1994) and in Andaman-Nicobar by three species.

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No other orchid genus has leaves like that of *Nervilia* and hence it could be easily located by this feature. The underground tuber remains dormant for a spell of time, then produces an inflorescence and when the flowers wilt and wither, the same tuber produces a leaf. All the three species could be grown as potted ornamentals on a window sill or semi-shady balconies, as the attractive foliage resemble some *Begonia* spp.

Since leaves and flowers do not appear simultaneously and as we come across with more frequently leafy plants in the field, an artificial key to the species is provided here based on vegetative characters.

Key to the species

- 1a. Leaves hairy on both sides, blades purplish-brown, with incurved margins; leaf-stalk 1-4cm. long.....*N. plicata*
- 1b. Leaves not hairy, blades green, margins flat; leaf-stalk 5-20 cm or more long2
- 2a. Prominent nerves on the leaf-blade 6-8; margin of the leaf-blade angular.... *N. punctata*
- 2b. Prominent nerves on the leaf-blade 20-26; margin of the leaf-blade undulate*N. aragoana*

Nervilia aragoana Gaud. in Freycinet, Voy.Bot. 422, t. 35.1829. *Pogonia flabelliformis* Lindl., Gen.Sp. Orchid.Pl. 415.1840; Hook. f., Fl. Brit. India 6: 121. 1890 (Fig.1, A).

Small, tuberous herbs. Tubers globose, 1-2 cm across. Leaves broadly ovate, cordate, 5-10 x 5-6 cm, acuminate, glabrous; stalks purplish-green, 10-20 cm long. Inflorescence 10-30 cm long, few to many flowered, lax. Flowers greenish, pendulous, 2.0-2.5 cm long. Sepals and petals greenish with purple veins, 12-16 x 2-3 mm, linear. Lip white with purplish-green veins, 10-12 mm long.

Flowers: May - June

Leaves: September - October

Distribution: Andaman and Nicobar, Peninsular India, North Western Himalayas, eastwards to China, the Philippines and Ryukyu Islands, the South-East through Indonesia to Australia and Pacific, Malaysia and Burma.

Specimens examined: Andaman Islands : South Andaman, Kodiaghat to Rangachang, 19.9.1976, Balakrishnan 4086 (PBL); Little Andaman, Hutbay to Harmander Bay,

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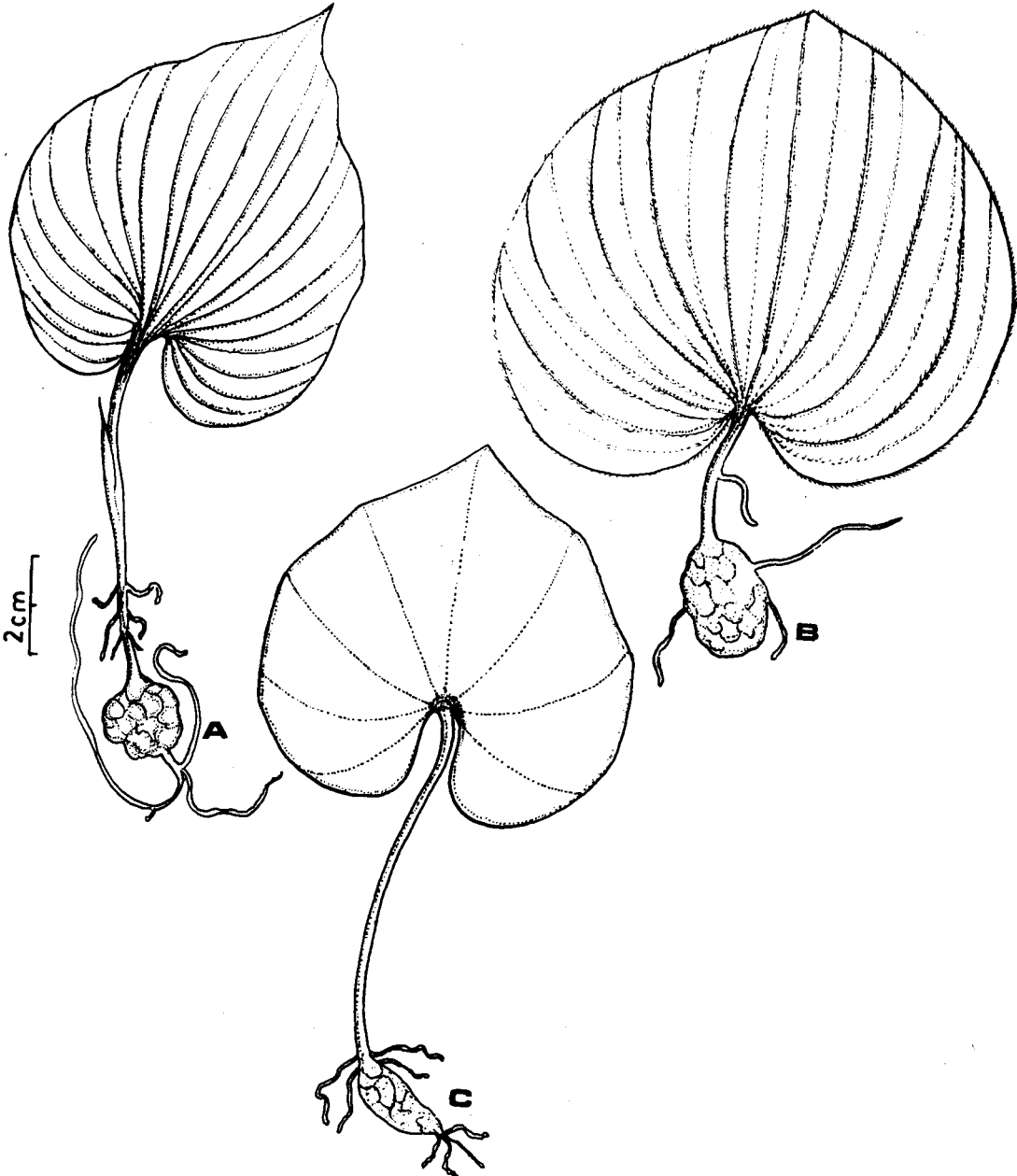


Fig. 1. A. *Nervilia aragoana* Gaud.; B. *Nervilia plicata* (Andr.) Schltr.; C. *Nervilia punctata* (Bl.) Makino.

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02-05-1975, *Bhargava* 2362 (PBL); Middle Andaman, Long Island, near Sigma Nallah,
20-10-1994, *Sreekumar & Ray* 16447 (PBL).

This highly variable species prefers shady habitats along the coastal forests. It is suitable to grow as a border plant. Ambasta (1986) speaks of a decoction of leaves, orally administered as a tonic after parturition.

Nervilia plicata (Andr.) Schltr. in Engl., Bot. Jahrb.45:403.1911. *Arethusa plicata* Andr., Bot. Repos. 5:t.321.1803. *Pogonia biflora* Wight, Ic.t.1758.1851; Hook f., Fl.Brit.India 6: 119. 1890 (Fig.1,B).

Tuberous herbs, with leaves just above the ground level. Tubers globose, 0.5-2.0 cm across. Leaves ovate or orbicular, purplish-brown, margins evenly rounded, 5-15 cm in diam, plicate, hairy on both sides. Inflorescence 5-12 cm long, 2-3- flowered. Flower erect or sub-erect, ivory coloured, lip with purplish streaks. Sepals and petals oblong-lanceolate, 2-4 cm long, olive-green or purplish-white. Lip entire, white at the base, veins yellowish-brown or purplish. Column erect, 10-12 x 4-5 mm, clavate at apex.

Flowers: September.

Leaves: October.

Distribution: Andaman Islands, Peninsular India, north through Orissa and Bengal to Sikkim-Himalayas, and eastwards to Burma, Thailand, Indo-China and the Philippines, Java, New Guinea, Australia and Malaysia.

Specimens examined: Andaman Islands: Middle Andaman, Long Island, Odhodi Nallah, 20-10-1994, *Sreekumar & Ray* 16448 (PBL).

This interesting species was not reported from Andaman Nicobar Islands by the previous workers (Balakrishnan, 1976; Vasudeva Rao, 1986; Karthikeyan *et al.*, 1989; Sathish Kumar & Manilal, 1994). It is reported here as a new record for the islands based on our fresh collection.

N.plicata could be grown as a very good potted ornamental herb owing to its beautiful, purplish-brown leaves. But, it requires adequate watering and shady surroundings. Giant african Snail (*Achatina fulica* L.) has been found as the first enemy to this lovely orchid.

Nervilia punctata (Bl.) Makino, Bot.Mag.Tokyo 16: 199:1902; Balakr. & Chakrab., Bull. Bot.Surv. India 20: 83.1978. *Pogonia punctata* Bl., Mus. Bot.Ludg. Bat. 1:32:1849 (Fig.1,C).

Tuberous herbs. Leaves ovate-cordate, 4-10 cm across, with 6-8 main-nerves, margins slightly angular. Inflorescence 8-10 cm long, often 1-flowered. Sepals and petals spread-

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ing, pale yellow with dull purple streaks, ca. 2 cm long. Lip shorter, the base embracing the column, with incurved, acute side lobes, middle lobe recurved, white or pale mauve with purple dots. Column ca, 6 mm high.

Flowers: April - May

Leaves : June - July

Distribution: Nicobar Islands, East India, Malaya, Singapore, Sumatra, Borneo, Java and Peninsular Thailand.

Specimen examined: Nicobar Islands: Great Nicobar, Near Shompen House, 36.8 Km. - East West Road, 17-06-1977, *Balakrishnan 5817* (PBL); Campbell Bay to Chengappa Bay, 11-06-1977, *Balakrishnan 5709* (PBL); Katchal, Milder, 4-5-1977, *Chakraborty 5601* (PBL).

This species was first reported from India by Balakrishnan and Chakraborty (1978). Plants could be grown as potted ornamental.

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